

## Abstract of the Disclosure

A detector system for a particle beam apparatus, in particular for a scanning electron microscope, has a target structure, which in a central region near the optical axis includes an electron-converting material. The target structure also includes either a non-converting material in a region remote from the optical axis or the region remote from the optical axis is offset in the direction of the optical axis with respect to the region near the optical axis that includes the electron-converting material. The detector system makes possible separate detection of only back-scattered electrons or only secondary electrons.